Lanny Creedle

June 27, 2013

GETS Education Program

WELCOME

Review of last month

Topic: End User Computing and Service Desk

Learning Objectives

- Understand End User Computing/Service Desk services provided by GETS
- Understand the GETS charges for End User Computing/Service Desk
- Become familiar with the primary processes and tools to manage an agency's usage of End User Computing/Service Desk

Learning Objectives Evaluation

- You have copies of the evaluation summary and attendance report
  - By request, there will be a separate GETS Dispute Process Meeting held in August 2013
  - More details in July 2013
- Please take the time to complete these evaluations at the end of each session, we want to ensure we are meeting the learning objectives

Clarification of Campus EUC device?

- Last session we defined campus EUC as “desktops, laptops, tablets, network printers, and thin clients which have 350+ units inside a 15-mile radius”.
- Question – are those 350+ units in that 15 mile radius all have to be from a single agency or from multiple agencies?
- The answer given was “single agency” but it should have been “multiple agencies make up that 350+ count of EUC devices”.

2013 GETS Education Program

Month	Topic	Month	Topic
Feb 28	Introduction	Aug 22	Mainframe
March 28	Invoice Overview	Sep 26	Voice
April 25	Transformation & How to work with GTA	Oct 24	LAN/WAN
May 23	EUC and Service Desk	Nov	No training
June 27	Servers	Dec	No training
July 25	Storage		

Dean Johnson

Kevin Schultz

June 27, 2013

GETS Education Program

SERVERS

Ensuring our common understanding

- **The learning objectives for this session will ensure you:**
  - Understand Server services provided by GETS
  - Understand the way charges are calculated in a GETS invoice for Server services
  - Become familiar with the primary processes and tools to manage an agency's usage of the Server Tower Resource Units

- **After this session, you will be asked to complete a feedback form demonstrating your understanding of the material**

Ensuring our common understanding

- **We will review your feedback**
  - If there is a group need for information, we will incorporate it into the curriculum or have an additional training session
  - If the need is specific to an individual or agency – we will schedule a one-on-one session to ensure you get the information you need

- **We are committed to your success!**

Agenda

- **Better understanding of your GETS Server services**
- **Understand the Resource Units and charges for the Server Tower**
- **Understand how to leverage primary processes and tools to better manage your service usage in this tower**

The GETS Model: A Paradigm Shift

In 2009, the state moved from buying and maintaining hardware to purchasing IT *services*.

GETS model is consumption-based.

The agency pays for only the services it consumes.

The agency is enabled and empowered to own and manage consumption of services.

GETS Glossary for Servers

GETS – HE	Georgia Enterprise Technology Services Hosting Environment
Resource Unit (RU)	“Unit of measure” for IT services provided by GETS
Incident	An unplanned interruption to an IT service or a reduction in the quality of an IT Service
Legacy Environment	Location of any non-transformed server in GETS
Physical Server	The actual computer hardware used to provide shared processing or resources
Server Technical Platforms	AIX Server, Exchange, Linux, Novell, Unix, and Wintel
Virtual Server	Software layered on a physical server that executes programs like a physical server (e.g. Hypervisor, VM Ware)

Glossary, continued

Application Server Types	Wintel or Unix server that hosts end-user or business related functions for the agencies
Utility Server	Servers used for Email, File & Print, Enterprise Gateways, and Presentation and Terminal
Infrastructure Server	Servers used for Domain Services, Enterprise Security, Enterprise Backup, Enterprise Monitoring, Enterprise Scheduling, and Software Distribution
Instance Complexity	Classification of support for a server operating system based on agency-defined need for system availability, system use, problem resolution time, etc.

Server Tower

- **Recovers charges for application, utility, and infrastructure servers in the GETS environment**
- **Services provided by IBM**
  - Asset management
  - Change management
  - Configuration management
  - Disaster recovery
  - Monitoring, patching, maintenance, malware
  - Recovery management
  - Security
  - Server refresh
  - Server consolidation (SCON)Transformation
  - File & Print Transformation
- **Examples of server hardware at North Atlanta Data Center :**

IBM System x3650

Oracle T4 Series

Server Tower:
Before and After GETS

Before GETS	After GETS
Agencies performed all server maintenance	Server hardware, operating systems, and patching provided and managed through IBM
No Enterprise Disaster Recovery program	Enterprise Disaster Recovery program available (nine agencies participating)
Inconsistent monitoring and capacity reporting	Centralized change management, monitoring, and alert notification
Server refresh limited to capital expenditures when available	Servers are refreshed every 5 years
No consolidation	The Server Consolidation (SCON)Transformation project is driving efficiencies in application environments

Server Types related to Server Resource Units

Server Types & Category		Resource Unit	Cost Recovered
Application Servers		**Application Server Complexity Instances**	Recovers cost of support for each server instance based on server type and complexity
		Application Server Hardware Charge	Recovers cost of hardware for each physical server
		Application Software Services Charge	Recovers cost of software
Utility Servers	Email	**Email Accounts**	Recovers cost of hardware and support; no discrete Hardware Service Charge
	File and Print, Enterprise Gateway	**LAN Attached Device**	
	Presentation and Terminal	**Intel Server Instance - *Medium Complexity***	
Infrastructure Servers		***Not Applicable***	Hardware and support costs are recovered through other Server Resource Units

Resource Units (RUs) that Recover the Cost of Server Services

Application Servers – Hardware Service Charge for each physical server AND Server Instance RU based on server type and complexity

Utility Servers – NO Hardware Service Charge. RU depends on function

- **Email Server – Email ID RU**
- **File and Print Server – LAN Attached Device RU**
- **Enterprise Gateway Server – LAN Attached Device RU**
- **Presentation and Terminal Server – Medium Complexity Intel Server Instance RU**

Infrastructure Servers – No Hardware Service Charge or RU. The cost to the Vendor is recovered through other Server RUs.

What is a server instance?

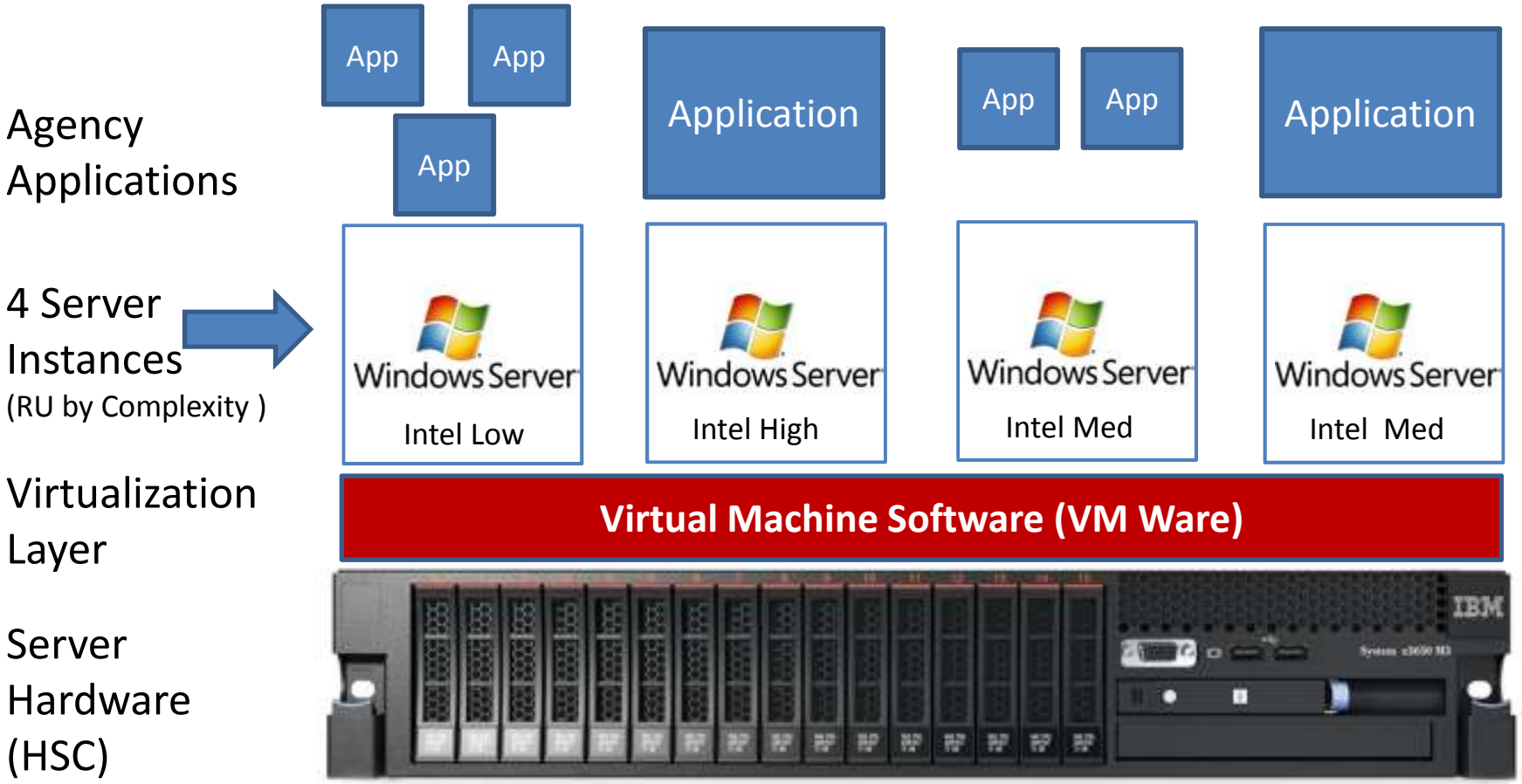
Server Instance

An *Instance* is one operating system running on a server to operate one or more applications

- **One or more applications can run on one instance**
- **One or more instances can run on one server**
- **Server cluster: multiple instances running on multiple physical servers**
- **Resource Unit rates for server instances are determined by complexity level (High, Medium, or Low - *matrix in addendum*)**
  - Agency determines complexity based on application's business value:
    - Operational Support Hours
    - Availability
    - Resolution Time
    - Use (Production, Testing, or Development)
    - Storage Management
    - Disaster Recovery Planning

Server Instance

An *Instance* is one operating system running on a server to operate one or more applications

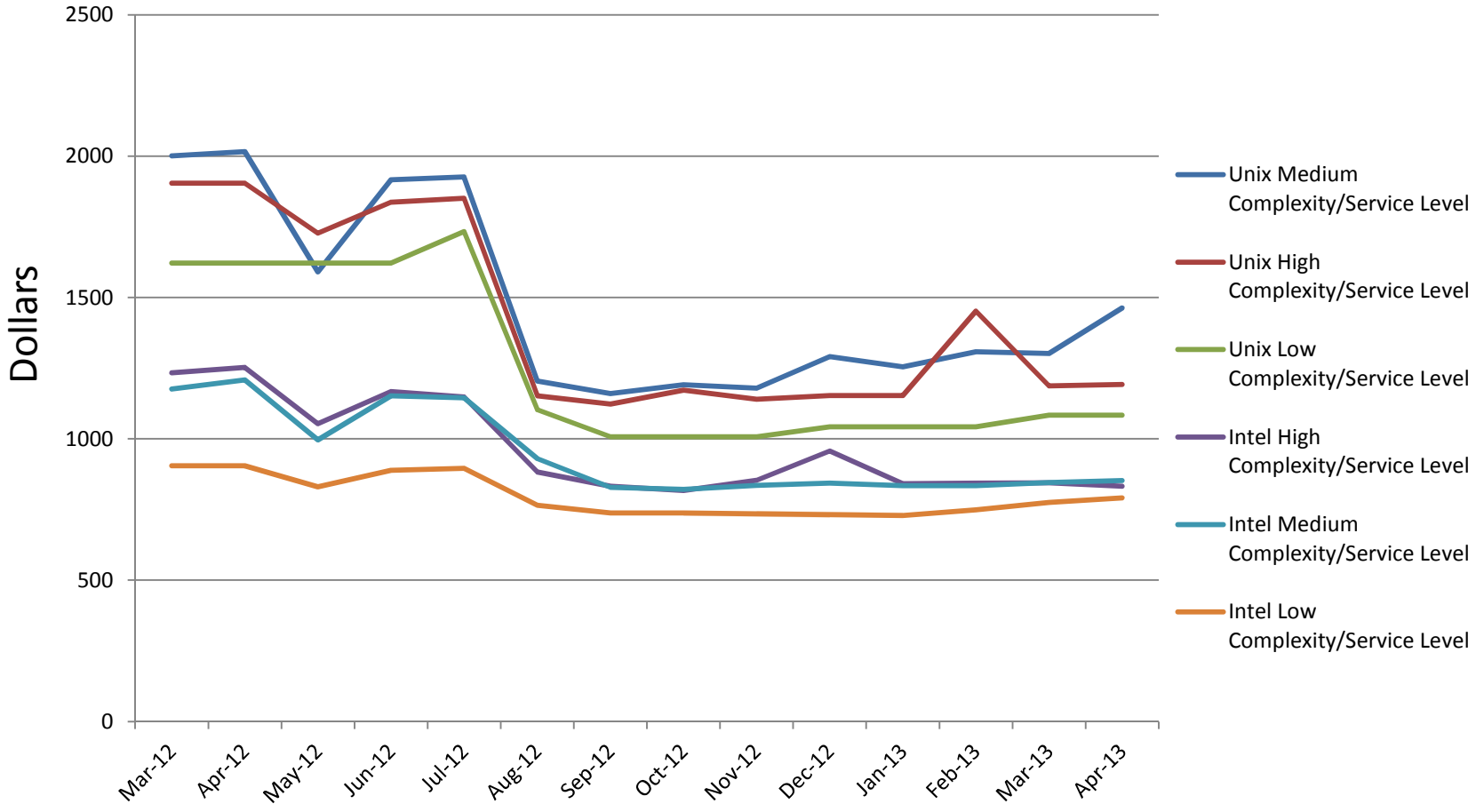


Server Complexity Matrix

		Application Server Complexity – UNIX, Intel and other		
Service	***Definition***	**High** (Rating Weight - 1.5)	**Medium** (Rating Weight - 1.0)	**Low** (Rating Weight - 0.5)
Value to Agency	*Agency IT perspective of the overall value of the service supported by this server*	Business or Mission Critical	Important to the Agency	Basic Functionality for Agency
Operational Support Hours	*Primary hours in which the agency depends on the server to meet their business objectives. Provider must respond immediately to a service disruption*	24 X 7	Something < 24 X 7 and > 12 X 5	12 X 5 of less
System Availability	*SLA or expectation of available time during the scheduled window*	99.9% or greater	98.5% up to 99.9%	*98.5% or lower*
System Use	*Primary use of the system*	Production	System Test	*Dev and Unit Test*
Problem Resolution Time	*Expectation of the average recovery time for a system failure (hardware or software)*	< 4 hours	< 8 hours	< 24 hours
Storage Management – Provide data management and backup / restore services. Storage management encompasses administration, maintenance, control, monitoring, reporting, and backup and restoration of data stored and accessed on the server.	*Provides a broad range of storage management services that may be available. The broader the requirement the higher the complexity factor*	Full Services Required	Basic Backup and Restore plus some advanced support	Basic Backup and Restore
Perform & Capacity Planning	*Are regularly scheduled processes in place for performance tuning and capacity planning*	Required & Regular	Ad hoc	Not Required
Disaster Recovery Capability (Plan and Facilities to exercise)	*Does a formal disaster recovery plan exist and are processes in place to achieve documented recover times*	Planned Exercises	Plan & Facilities No Formal Exercise	Plans Only

Rate History

In general, rates are stable.



Recap Server Tower Resource Units

- **Application Servers**
  - Hardware Service Charges (HSCs) are based on the Agency's total count of physical servers
  - Server Instance RUs are based on the Agency's total number of application server instances by type and complexity
- **Utility Servers – NO HSC. Support RU depends on function**
  - Email – based on Agency's total count of email accounts
  - File & Print, Gateway – based on Agency's total count of EUC devices listed as active and/or connected in Maximo
  - Presentation and Terminal – based on server instance
- **Infrastructure Servers – NO HSC or support RUs**

So . . . **Management of the Server Tower is directly related to number of email accounts, number of EUC devices, the number of physical servers, *and* the number of low, medium, and/or high complexity server instances**

Best Practices in Consumption Management

- **One of the Agency's key roles: *Reconcile your bill***

Infrastructure Invoice

Georgia Technology Authority

Georgia Technology Authority
P.O. Box 945941
Atlanta, GA 30394-5941

	Units	Unit Rate	Amount	GTA Admin Fee	Charge
Intel High Complexity/Service Level	16.0000	825.8201	13,213.12	1,125.76	14,338.88
Intel Medium Complexity/Service Level	20.0000	834.4257	16,688.53	1,421.86	18,110.39
Intel Low Complexity/Service Level	4.0000	745.4627	2,981.83	254.05	3,235.88
Unix High Complexity/Service Level	4.0000	1,197.9146	4,791.66	408.25	5,199.91
Unix Medium Complexity/Service Level	38.0000	1,407.0554	53,468.10	4,555.48	58,023.58
Unix Low Complexity/Service Level	7.0000	1,133.1313	7,931.92	675.80	8,607.72
Application Server - Hardware Charge	3,435.0270	1.0000	3,435.02	292.66	3,727.68
Application Server - Software Charge	1,218.0000	1.0000	1,218.00	0.00	1,218.00

Best Practices in Consumption Management

- **Request appropriate server type and complexity level for new or upgraded applications based on business and operational needs**
- **Follow best practices for EUC device management to control LAN Attached Device RU**
- **Get rid of unnecessary email accounts**

How to Address Discrepancies

What if the agency discovers a discrepancy in the detail of its Server Resource Units?

- If the agency identifies a discrepancy, its Asset Manager uses the "Change an Attribute to an existing Asset" product in the OrderNow! online service catalog to change Asset Attributes in Maximo

What if the agency identifies resource units incorrectly assigned to the agency or devices remaining on the invoice after a decommission order has been completed?

- Submit a dispute to chargebackadmin@gta.ga.gov with the required documentation

GTA's Role in Server Management

- **Governance of Server Tower**
  - Process improvement, verification, and reporting
  - Service level agreement (SLA) validation and management
  - Transparency in total cost of services, negotiating competitive rates

- **Dispute Resolution**
  - **Customer Relationship Manager (CRM)**: *Single* point of escalation
  - chargebackadmin@gta.ga.gov

- **Empowering Agencies with knowledge and tools**
  - Ongoing Education for Agency Asset Management Leads, Coordinators, and Invoice Reviewers to discuss processes, tools, performance metrics
  - Asset Management Handbook, highlighting roles, best practices, processes, reports, FAQ - DVD provided in May 2013 session
  - Asset Management Toolkit (available late 2013) that will bridge asset management data across Maximo, scan tools, agency databases, and invoice

Server Consumption Management Summary

The Agency is enabled and empowered to perform consumption management for servers:

- **Application server RUs are driven by number of physical servers *and* type and complexity of server instance**
- **Best practices in EUC consumption management also lower utility server costs**
- **Delete unused email accounts to lower utility server costs**

Questions???

Preview of What's Ahead

- **Next Education Topic: Storage**
- **Learning objectives:**
  - Better understanding your GETS services
  - Knowing the charges (Resource Unit) for your GETS services
  - Knowing how to leverage processes and tools to better manage your service usage

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Close

- **Please complete your Learning Objectives Evaluation**

- **Next GETS Education Session – July 25, 2013**
  - Storage

ADDENDUM

- Complete Server Complexity Matrix
- Server Billing Method Summary
- Utility Server Examples
- Infrastructure Server Examples
- Volume Charges and Trend (VCT) Report Sample
- Server and Storage Report Group Invoice Detail Report Sample
- Server Resource Unit Billing Triggers

Server Complexity Matrix

		Application Server Complexity – UNIX, Intel and other				Weighted Value		
Service	***Definition***	**High** (Rating Weight - 1.5)	**Medium** (Rating Weight - 1.0)	**Low** (Rating Weight - 0.5)	**Category Weight**	**High**	**Medium**	**Low**
Value to Agency	*Agency IT perspective of the overall value of the service supported by this server*	Business or Mission Critical	Important to the Agency	Basic Functionality for Agency	0.150	1.73	1.15	0.58
Operational Support Hours	*Primary hours in which the agency depends on the server to meet their business objectives. Provider must respond immediately to a service disruption*	24 X 7	Something < 24 X 7 and > 12 X 5	12 X 5 of less	0.150	1.73	1.15	0.58
System Availability	*SLA or expectation of available time during the scheduled window*	99.9% or greater	98.5% up to 99.9%	*98.5% or lower*	0.250	1.88	1.25	0.63
System Use	*Primary use of the system*	Production	System Test	*Dev and Unit Test*	0.150	1.73	1.15	0.58
Problem Resolution Time	*Expectation of the average recovery time for a system failure (hardware or software)*	< 4 hours	< 8 hours	< 24 hours	0.200	1.80	1.20	0.60
Storage Management – Provide data management and backup / restore services. Storage management encompasses administration, maintenance, control, monitoring, reporting, and backup and restoration of data stored and accessed on the server.	*Provides a broad range of storage management services that may be available. The broader the requirement the higher the complexity factor*	Full Services Required	Basic Backup and Restore plus some advanced support	Basic Backup and Restore	0.175	1.76	1.18	0.59
Perform & Capacity Planning	*Are regularly scheduled processes in place for performance tuning and capacity planning*	Required & Regular	Ad hoc	Not Required	0.025	1.54	1.03	0.51
Disaster Recovery Capability (Plan and Facilities to exercise)	*Does a formal disaster recovery plan exist and are processes in place to achieve documented recover times*	Planned Exercises	Plan & Facilities No Formal Exercise	Plans Only	0.050	1.58	1.05	0.53
					1.000	13.725	9.150	4.575

Server Billing Method Summary

Server Type	Billing Method
Application Server	Direct billing via Instance Complexity/Service Level
Utility Server	Direct billing via Email Account or, LAN Attached Device or, Instance Complexity
Infrastructure Server	No direct billing

Utility Server Examples

Utility Server Type	*Utility Description*	*Utility Example(s)*	*Resource Unit*
Email	Servers providing Email Services as described in the Email Services Resource Baseline below.	Exchange, Domino, Spam Filters	Email Account
File & Print	Servers hosting End User corporate file shares or print queue solutions.	File Shares, Print Queues, NAS Head, Barr, Solimar	LAN Attached Devices
Enterprise Gateways	Servers providing End User remote access, mail relay and external file sharing.	FTP, VPN, RAS, SMTP, BES	LAN Attached Devices
Presentation and Terminal	Servers provide for the processing of applications which have the presentation layer presented to connected thin PCs	Citrix, Terminal Server	Medium Complexity Intel Instance

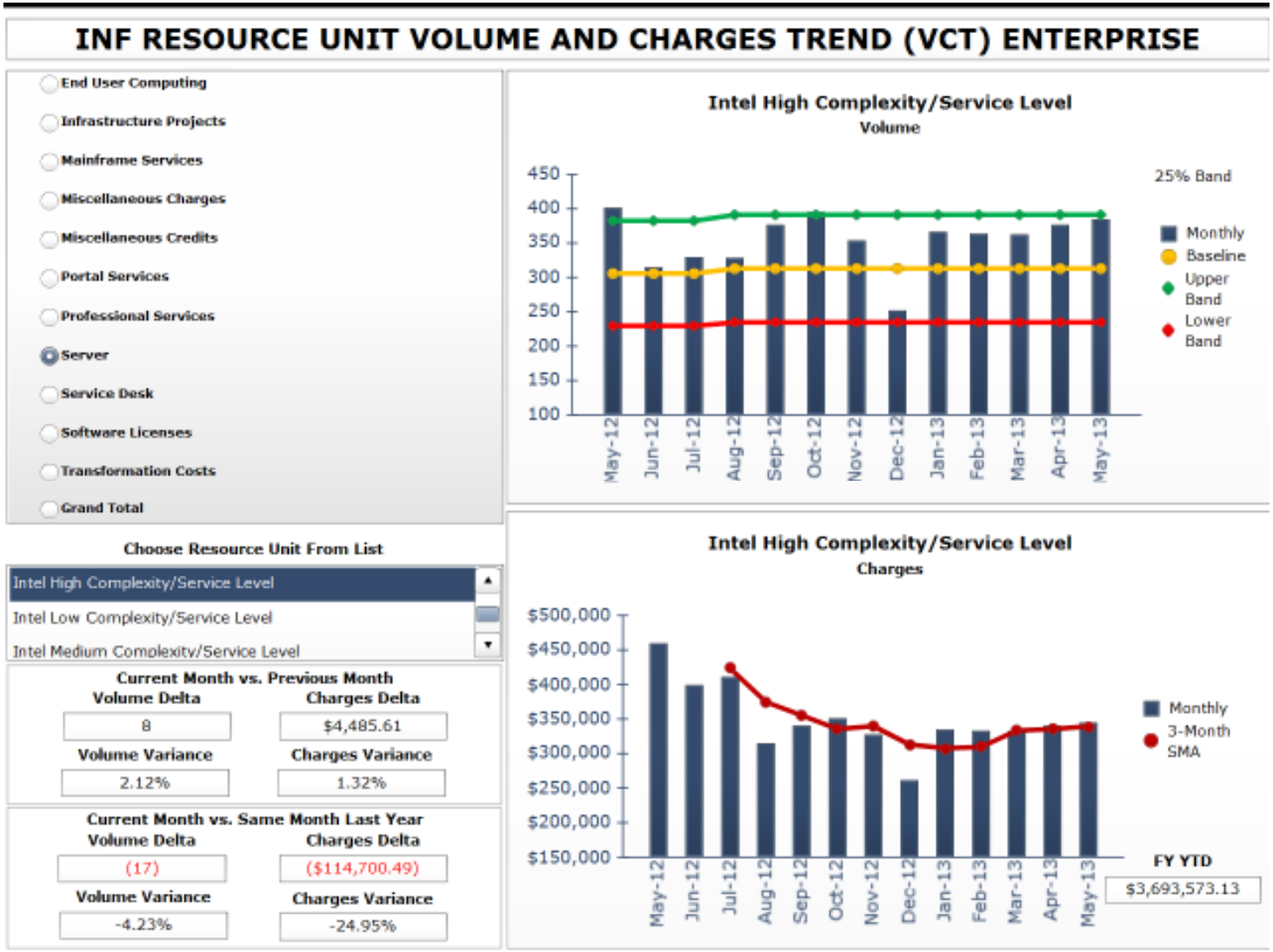
The storage usage on these servers is billed as a separate line item

Infrastructure Server Examples

Server Type	*Description*	*Example(s)*
Domain Services	Servers providing End User enterprise authentication and IP/Name resolution.	WINS, Domain Controllers, Active Directory, ISA
Enterprise Security	Servers providing End User enterprise security management (authentication, protection, logging).	Firewall, Anti-Virus, Intrusion Detection, BindView, WebSense, Sygate
Enterprise Backup	Servers providing Third Party vendor backup solutions.	TSM, Legato, Backup Exec, Veritas
Enterprise Monitoring	Servers providing Third Party vendor monitoring, device fault management or capacity planning services for scope of services.	BMC, EMC, Cisco Works, HP OpenView
Enterprise Scheduling	Servers providing Third Party vendor job scheduling solutions.	Maestro, Tivoli
Software Distribution	Servers providing software distribution, remote management, asset inventory, and image development.	Marimba, SMS, Ghost, LanDesk, Altiris, Image Servers

- **Infrastructure Servers are not a billable Resource Unit**
- **The cost to the Vendor is recovered through the other Server Resource Units**

Volume and Charge Trend (VCT)



Server Storage Report Group Invoice Detail

Report Group	Resource Description	Units	Amount Charged	GTA Admin Fee	Total Amount Charged	Server Host Name	Server Instance Name	Complexity	Image Category	Usage Dates	Invoice Number
01 - Server Asset Support Charges	Intel High Complexity/Service Level	1	$ 825.82	$ 70.36	$ 896.18	SRV-ATL-EBILL42	SRV-ATL-EBILL42	HIGH	Application Server	20130415	943-980005-
01 - Server Asset Support Charges	Intel High Complexity/Service Level	1	$ 825.82	$ 70.36	$ 896.18	SRV-ATL-SPS01	SRV-ATL-SPS01	HIGH	Application Server	20130415	943-980005-
01 - Server Asset Support Charges	Intel High Complexity/Service Level	1	$ 825.82	$ 70.36	$ 896.18	SRV-ATL-WS05	SRV-ATL-WS05	HIGH	Application Server	20130415	943-980005-
01 - Server Asset Support Charges	Intel High Complexity/Service Level	1	$ 825.82	$ 70.36	$ 896.18	SRV-ATL-WS06	SRV-ATL-WS06	HIGH	Application Server	20130415	943-980005-
01 - Server Asset Support Charges	Intel High Complexity/Service Level	1	$ 825.82	$ 70.36	$ 896.18	PAPP11DIQXXX01P		HIGH	Application Server	20130415	943-980005-
01 - Server Asset Support Charges	Intel High Complexity/Service Level	1	$ 825.82	$ 70.36	$ 896.18	PBBP11DBLKBY01ZR		HIGH	Application Server	20130415	943-980005-
01 - Server Asset Support Charges	Intel High Complexity/Service Level	1	$ 825.82	$ 70.36	$ 896.18	GTAPORTAL01	GTAPORTAL01	HIGH	Web Server	20130415	943-980005-
01 - Server Asset Support Charges	Intel High Complexity/Service Level	1	$ 825.82	$ 70.36	$ 896.18	PORTDB-1P	PORTDB-1P	HIGH	Web Server	20130415	943-980005-
01 - Server Asset Support Charges	Intel High Complexity/Service Level	1	$ 825.82	$ 70.36	$ 896.18	GTA-ATL-ACT01	GTA-ATL-ACT01	HIGH	Web Server	20130415	943-980005-
01 - Server Asset Support Charges	Intel High Complexity/Service Level	1	$ 825.82	$ 70.36	$ 896.18	GTA-ATL-SPS04	GTA-ATL-SPS04	HIGH	Application Server	20130415	943-980005-
01 - Server Asset Support Charges	Intel High Complexity/Service Level	1	$ 825.82	$ 70.36	$ 896.18	GTA-ATL-SPS05	GTA-ATL-SPS05	HIGH	Application Server	20130415	943-980005-
01 - Server Asset Support Charges	Intel High Complexity/Service Level	1	$ 825.82	$ 70.36	$ 896.18	GTA-ATL-SPSDB01	GTA-ATL-SPSDB0	HIGH	Database Server	20130415	943-980005-
01 - Server Asset Support Charges	Intel High Complexity/Service Level	1	$ 825.82	$ 70.36	$ 896.18	GTA-ATL-SPSDB02	GTA-ATL-SPSDB0	HIGH	Database Server	20130415	943-980005-
01 - Server Asset Support Charges	Intel High Complexity/Service Level	1	$ 825.82	$ 70.36	$ 896.18	GTA-ATL-SPSWS01	GTA-ATL-SPSWS(	HIGH	Application Server	20130415	943-980005-
01 - Server Asset Support Charges	Intel High Complexity/Service Level	1	$ 825.82	$ 70.36	$ 896.18	GTA-ATL-SPSWS02	GTA-ATL-SPSWS(	HIGH	Application Server	20130415	943-980005-
01 - Server Asset Support Charges	Intel High Complexity/Service Level	1	$ 825.82	$ 70.36	$ 896.18	SRV-ATL-IDX02	SRV-ATL-IDX02	HIGH	Application Server	20130415	943-980005-
01 - Server Asset Support Charges	Intel Low Complexity/Service Level	1	$ 745.46	$ 63.51	$ 808.98	TS01.TEST.GA.LOCAL	TS01.TEST.GA.LOC	LOW	Database Server	20130415	943-980005-
01 - Server Asset Support Charges	Intel Low Complexity/Service Level	1	$ 745.46	$ 63.51	$ 808.98	TESTIFM03	TESTIFM02	LOW	Application Server	20130415	943-980005-
01 - Server Asset Support Charges	Intel Low Complexity/Service Level	1	$ 745.46	$ 63.51	$ 808.98	VAPP11DAWSEG01Z		LOW	Application Server	20130415	943-980005-
01 - Server Asset Support Charges	Intel Low Complexity/Service Level	1	$ 745.46	$ 63.51	$ 808.98	GTA-ATL-DHC1	GTA-ATL-DHC1	LOW	Application Server	20130415	943-980005-
01 - Server Asset Support Charges	Intel Medium Complexity/Service Level	1	$ 834.43	$ 71.09	$ 905.52	GTA-ATL-SVR02	GTA-ATL-SVR02	MED	Application Server	20130415	943-980005-
01 - Server Asset Support Charges	Intel Medium Complexity/Service Level	1	$ 834.43	$ 71.09	$ 905.52	SD-TREND	sd-trend	MED	Application Server	20130415	943-980005-
01 - Server Asset Support Charges	Intel Medium Complexity/Service Level	1	$ 834.43	$ 71.09	$ 905.52	ESBJUMP	ESBJUMP	MED	Presentation and Terminal Serve	20130415	943-980005-
01 - Server Asset Support Charges	Intel Medium Complexity/Service Level	1	$ 834.43	$ 71.09	$ 905.52	AWEB01	AWEB01	MED	Web Server	20130415	943-980005-
01 - Server Asset Support Charges	Intel Medium Complexity/Service Level	1	$ 834.43	$ 71.09	$ 905.52	VAPP11DSYNTS01A		MED	Application Server	20130415	943-980005-
01 - Server Asset Support Charges	Intel Medium Complexity/Service Level	1	$ 834.43	$ 71.09	$ 905.52	VAPT11DSYNTS01A		MED	Application Server	20130415	943-980005-
01 - Server Asset Support Charges	Intel Medium Complexity/Service Level	1	$ 834.43	$ 71.09	$ 905.52	VDBP11DSYNTS01A		MED	Database Server	20130415	943-980005-
01 - Server Asset Support Charges	Intel Medium Complexity/Service Level	1	$ 834.43	$ 71.09	$ 905.52	VDBT11DSYNTS01A		MED	Database Server	20130415	943-980005-
01 - Server Asset Support Charges	Intel Medium Complexity/Service Level	1	$ 834.43	$ 71.09	$ 905.52	SRV-ATL-HOP1	SRV-ATL-HOP1	MED	Presentation and Terminal Serve	20130415	943-980005-
01 - Server Asset Support Charges	Intel Medium Complexity/Service Level	1	$ 834.43	$ 71.09	$ 905.52	SRV-ATL-VCTXA1	SRV-ATL-VCTXA1	MED	Presentation and Terminal Serve	20130415	943-980005-
01 - Server Asset Support Charges	Intel Medium Complexity/Service Level	1	$ 834.43	$ 71.09	$ 905.52	SRV-ATL-VCTXA3	SRV-ATL-VCTXA3	MED	Presentation and Terminal Serve	20130415	943-980005-
01 - Server Asset Support Charges	Intel Medium Complexity/Service Level	1	$ 834.43	$ 71.09	$ 905.52	SRV-ATL-VCTXA4	SRV-ATL-VCTXA4	MED	Presentation and Terminal Serve	20130415	943-980005-
01 - Server Asset Support Charges	Intel Medium Complexity/Service Level	1	$ 834.43	$ 71.09	$ 905.52	SRV-ATL-VCTXA6	SRV-ATL-VCTXA6	MED	Presentation and Terminal Serve	20130415	943-980005-
01 - Server Asset Support Charges	Intel Medium Complexity/Service Level	1	$ 834.43	$ 71.09	$ 905.52	SRV-ATL-VCTXL1	SRV-ATL-VCTXL1	MED	Presentation and Terminal Serve	20130415	943-980005-
01 - Server Asset Support Charges	Intel Medium Complexity/Service Level	1	$ 834.43	$ 71.09	$ 905.52	SRV-ATL-VCTXW1	SRV-ATL-VCTXW1	MED	Presentation and Terminal Serve	20130415	943-980005-
01 - Server Asset Support Charges	Intel Medium Complexity/Service Level	1	$ 834.43	$ 71.09	$ 905.52	SRV-ATL-VCTXW2	SRV-ATL-VCTXW2	MED	Presentation and Terminal Serve	20130415	943-980005-
01 - Server Asset Support Charges	Intel Medium Complexity/Service Level	1	$ 834.43	$ 71.09	$ 905.52	SRV-ATL-VMM01V	SRV-ATL-VMM01V	MED	Application Server	20130415	943-980005-
01 - Server Asset Support Charges	Intel Medium Complexity/Service Level	1	$ 834.43	$ 71.09	$ 905.52	GTAIRM	GTAIRM	MED	Application Server	20130415	943-980005-
01 - Server Asset Support Charges	Intel Medium Complexity/Service Level	1	$ 834.43	$ 71.09	$ 905.52	VSRV-ATL-SQL01	VSRV-ATL-SQL01	MED	Database Server	20130415	943-980005-
01 - Server Asset Support Charges	Intel Medium Complexity/Service Level	1	$ 834.43	$ 71.09	$ 905.52	GTA-ATL-TEPS1	GTA-ATL-TEPS1	MED	Application Server	20130415	943-980005-
01 - Server Asset Support Charges	Unix High Complexity/Service Level	1	$ 1,197.91	$ 102.06	$ 1,299.98	VIG-2P	VIG-2P	HIGH	Application Server	20130415	943-980005-
01 - Server Asset Support Charges	Unix High Complexity/Service Level	-1	$ (1,197.91)	$ (102.06)	$ (1,299.98)	PORT_6P	PORT_6P	HIGH	Application Server	20130415	943-980005-
01 - Server Asset Support Charges	Unix High Complexity/Service Level	-1	$ (1,197.91)	$ (102.06)	$ (1,299.98)	PORT_6P	PORT_6P	HIGH	Application Server	20130415	943-980005-
01 - Server Asset Support Charges	Unix High Complexity/Service Level	-1	$ (1,197.91)	$ (102.06)	$ (1,299.98)	PORT_6P	PORT_6P	HIGH	Application Server	20130415	943-980005-
01 - Server Asset Support Charges	Unix High Complexity/Service Level	1	$ 1,197.91	$ 102.06	$ 1,299.98	WEBMT-3P	WEBMT-3P	HIGH	Application Server	20130415	943-980005-
01 - Server Asset Support Charges	Unix High Complexity/Service Level	1	$ 1,197.91	$ 102.06	$ 1,299.98	WEBMT-4P	WEBMT-4P	HIGH	Application Server	20130415	943-980005-
01 - Server Asset Support Charges	Unix High Complexity/Service Level	1	$ 1,197.91	$ 102.06	$ 1,299.98	APP-2P	APP-2P	HIGH	Application Server	20130415	943-980005-

Server Resource Unit Billing Triggers

Resource Unit	Invoice Metric	Invoice Collection Date	Resource Unit Date Range	Billing Start Trigger	Billing Stop Trigger
Application Server Complexity Instances	Application Instance (Host Name)	15th day of the month	16th of the prior month to the 15th of the consumption month	An Application / Database / Web / Presentation and Terminal server instance with a completed OS build has been made available for customer use.	An Agency approved Work Order to decommission the server instance has completed.
Application Server Hardware Charge	Instance Allocation	1st day of the month	First day of the month to the last day of the consumption month	A physical server was installed in a GTA Customer's production environment prior to the first day of the consumption month.	State of Georgia customers are no longer receiving services from the server.
Application Software Services Charge	Amount	Last day of the month	First day of the month to the last day of the consumption month	Software expenditure was paid or incurred by Service Provider prior to invoice collection date. One time charge or 12 payments.	All payments received by Service Provider.